

Serial No. 10/666,166
67,008-079
S-5696

REMARKS

Applicant wishes to thank the Examiner for the detailed remarks. Claims 1, 3, 4, 7, 8, 9, 11 and 14 have been amended and claims 2, 6 and 15-17 have been cancelled. New claims 21-27 are presented. Accordingly, claims 1-27 are pending.

Applicant has amended the specification to further detail that which was disclosed in Figure 4. No new matter has been added.

Claims 1, 2, 6, 7, 9, 11, 13, 15, 16, and 20 were rejected under 35 U.S.C. §102(b) as being anticipated by *Lippisch* (2,743,888). Applicant respectfully traverses this rejection. Initially *Lippisch* discloses winglets – which are airfoils – not protuberances. *Lippisch* discloses winglets which generates a “thin sheet of wing vortices rather than a larger spiral vortex as is produced in Figure 4. [Col 2, lines 19-22]. *Lippisch* fails to disclose or suggest generating small-scale vortices that are ingested and at least partially entrained within a forming core of the primary tip vortex as recited in the amended claims. That is, *Lippisch* relates to causing a plurality of weaker individual tip vortices (from each of the winglets) to form in place of the single tip vortex that normally occurs and is recited in Applicant’s claims. The individual vortices of *Lippisch* mix together to theoretically result in a weaker (more diffused) downstream vortex-like tip vortex structure – they do not destabilize a normally occurring primary tip vortex. The amended claims are properly allowable

Claims 1-5, 7-11, 13 and 16-20 were rejected under 35 U.S.C. §103(a) as being unpatentable over *Lippisch* (2,743,888) in view of *Wake* (5,785,282). Applicant respectfully traverses these rejections. The Examiner admits that *Lippisch* fails to disclose vorticity generating protuberances extend from the tip of a helicopter blade. Notably, *Wake* also does not locate the vortex generators 10 upon a distal end of a tip. *Wake* locates the vortex generators 10 on upper and lower aerodynamic surfaces. Furthermore, like *Lippisch*, *Wake* attacks the primary tip vortex from outside. Applicant claims small-scale vortices that are ingested and at least partially entrained

Serial No. 10/666,166
67,008-079
S-5696

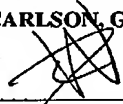
within a forming core of the primary tip vortex which attacks the core from within and at the formation thereof. The claims are properly allowable.

New claims 21-27 recite further features of the present invention which are neither disclosed nor suggested by the cited references and are thus properly allowable.

The Commissioner is authorized to charge \$124 for two additional claims in excess of 20 and one additional independent claim to Deposit Account No. 50-1482, in the name of Carlson, Gaskey & Olds, P.C. Should additional fees or extensions be required, the Commissioner is authorized to charge Deposit Account No. 50-1482, in the name of Carlson, Gaskey & Olds.

Applicant respectfully submits that this case is in condition for allowance. If the Examiner believes that a teleconference will facilitate moving this case forward to being issued, Applicant's representative can be contacted at the number indicated below.

Respectfully Submitted,
CARLSON, GASKEY & OLDS, P.C.



DAVID L. WISZ
Registration No. 46,350
Attorneys for Applicant
400 West Maple, Suite 350
Birmingham, Michigan 48009
(248) 988-8360

Dated: November 3, 2004

N:\Client\SI\KORSKY\NP00079\PATENT\elo79amnd-08-25-2004.doc